

10/519931

DT12 Rec'd PCT/PTO 30 DEC 2004

441/1/019

PATENT APPLICATION

#2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Madoka TONOSAKI et al

SERIAL NO.: Unassigned

FILED : December 30, 2004

FOR : NOVEL FUNCTIONAL PEPTIDE NUCLEIC ACID
AND PROCESS FOR PRODUCING THE SAME

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Richard M. Goldberg
(Name of Registered Representative
and person mailing)

Richard M. Goldberg
(Signature and Date)

Dec. 30,
2004

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The Applicants and those individuals involved in the preparation and/or prosecution of the above-identified Application have become aware of the following references which the Examiner may consider material to the patentability of the above-identified Application:

U.S. PATENT NO. DATE PATENTEE

6,809,190 10-26-2004 Ikeda et al

PUBLICATIONS

KISFALUDY et al, *Synthesis*, 1983, (4), pp. 325-327.

ARMITAGE, BRUCE et al, Peptide Nucleic Acid (PNA)/DNA Hybrid Duplexes: Intercalation by an Internally Linked Anthraquinone, *Nucleic Acids Research*, 1998, Vol. 26, No. 3, pp 715-720.

DUEHOLM, KIM L. et al, Synthesis of Peptide Nucleic Acid Monomers Containing the Four Natural Nucleobases: Thymine, Cytosine, Adenine, and Guanine and their Oligomerization, *J. Am. Chem. Soc.* 1994, Vol. 59, pp 5767-5773.

EGHOLM, MICHAEL et al, Peptide Nucleic Acids (PNA), Oligonucleotide Analogues with an Achiral Peptide Backbone, *J. Am. Chem. Soc.* 1992, Vol. 114, pp 1895-1897.

EGHOLM, MICHAEL et al, Recognition of Guanine and Adenine in DNA by Cytosine and Thymine Containing Peptide Nucleic Acids (PNA), *J. Am. Chem. Soc.* 1992, Vol. 114, pp 9677-9678.

HANVEY, JEFFERY C. et al, Antisense and Antigene Properties of Peptide Nucleic Acids, *Science*, Vol. 258, November 27, 1992, pp 1481-1485.

LOHSE, JESPER et al, Fluorescein-Conjugated Lysine Monomers for Solid Phase Synthesis of Fluorescent Peptides and PNA Oligomers, *Bioconjugate Chem.*, Vol. 8, 1997, pp 503-509.

NIELSEN, PETER E. et al, Sequence-Selective Recognition of DNA by Strand Displacement with a Thymine-Substituted Polyamide, *Science*, Vol. 254, December 6, 1991, pp. 1497-1500.

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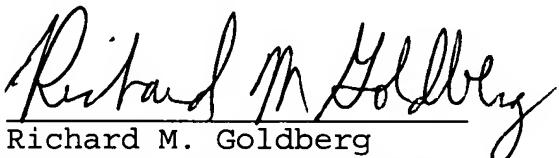
THOMSON, STEPHEN A. et al, Fmoc Mediated Synthesis of
Peptide Nucleic Acids, Tetrahedron, Vol. 51, No. 22, 1995, pp
6179-6194.

Copies of the above references are enclosed.

In addition, one Form PTO/SB/08A Form is enclosed, which lists the above references. It is requested that the Examiner initial this Form and return a copy thereof to the undersigned.

It is requested that the above-identified references be made of record in the present Application.

Respectfully submitted,



Richard M. Goldberg
Attorney for Applicants
Registration No. 28,215

25 East Salem Street
Suite 419
Hackensack, New Jersey 07601
TEL (201) 343-7775
FAX (201) 488-3884
e-mail: goldbergpat@earthlink.net

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PTO/SB/08A (08-03)

Approved for use through 07/31/2006, OMB 0651-0031

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Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

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Sheet

of 12

Complete if Known

Application Number

Filing Date 12-30-2004

First Named Inventor

Art Unit

Examiner Name _____

441/1/019

U. S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

Examiner Signature _____ Date Considered _____

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Substitute for form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Application Number	
				Filing Date	12-30-2004
				First Named Inventor	Madoka TONOSAKI ..
				Art Unit	
				Examiner Name	
Sheet	2	of	2	Attorney Docket Number	441/1/019

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		KISFALUDY et al, Synthesis, (4), pp. 325-327.	
		ARMITAGE, BRUCE et al, Peptide Nucleic Acid (PNA)/DNA Hybrid Duplexes: Intercalation by an Internally Linked Anthraquinone, Nucleic Acids Research, 1998, V. 26, No. 3, 715-20	
		DUEHOLM, KIM L. et al, Synthesis of Peptide Nucleic Acid Monomers Containing the Four Natural Nucleobases .. J. Am. Chem. Soc. 1994, Vol. 59, 5767-5773.	
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Examiner Signature		Date Considered	
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1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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